

I believe that weather and climate had and still do have much to do with the prevalence and character of contagious diseases, in spite of the added mass effect of increased population and crowding, but our knowledge needs enlargement and consolidation.—*John R. Weeks.*

#### DISINFECTING ACTION OF SUN'S RAYS ON TUBERCLE BACILLI.

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Bergen reports as the results of his extensive tests at Leysin that direct exposure of virulent tubercle bacilli to the sunlight, at an altitude of 1,360 meters, rendered them innocuous when injected into the peritoneum of guinea pigs after an exposure of half an hour during the summer. An hour's exposure was required for this during the spring and fall, and a little longer during the winter. His research has further convinced him, he says, that the share of ultraviolet rays in this action of the sunlight has been much overestimated.

#### INFLUENCE OF TEMPERATURE ON THE NUMBER OF DEATHS FROM INFANTILE DIARRHEA AT PARIS.

By LOUIS BESSON.

[Abstracted from *Comptes Rendus*, Paris Acad., Feb. 14, 1921, pp. 401-404.]

It is well known that infantile diarrhea is increasingly fatal with rise of temperature in summer. This paper gives a quantitative determination of that relation, based upon the data given in the *Bulletin hebdomadaire de Statistique municipale* of Paris. The meteorological data are those recorded by the Montsouris observatory. It was found that the effect of temperature begins to show with a mean temperature of 16.5° C. Below that temperature there is no apparent relation, but above, the

number of deaths increases rapidly. Eliminating the deaths which would occur without the influence of temperature, the author gives the effect of mean temperatures 1°, 3°, 5°, 7°, and 9° above 16.5° and finds the number of deaths per hundred corresponding to be 5, 11, 20, 41, and 62, respectively. He deduces mathematical expressions by means of which the number of deaths can be calculated, and the figures calculated corresponding to those just given are 3, 10, 21, 38, and 63, respectively. Expressions are given for the calculation of the number of deaths for any week. Grouping by years, the number of deaths for a 10-year period were calculated with an error of about 1 per cent. Other meteorological elements were tried with a view to discovering other relations, but the results were negative, indicating that temperature is the only element having a direct effect on mortality from this disease.—*C. L. M.*

#### 551.506 (08) 265.2 EXCHANGE OF WIRELESS WEATHER REPORTS BY VESSELS.

The Weather Bureau recently received from Capt. P. W. Trott of the British tank S. S. *Tascalusa*, a weather report covering the voyage of that vessel from Hong-kong to San Francisco, March 6-30, 1921. Embodied therein were weather reports received by wireless from other vessels.

This report is of especial interest as showing the possibilities of the exchange of weather observations by vessels at sea, from which deductions can be made as to the location and movement of storm centers and the character of weather to follow.

It is not stated whether any attempt was made to chart the observations received by the *Tascalusa*.

The report is published herewith in the hope that it will serve to stimulate the officers of other ships to collect and make use of such information.—*F. G. T.*